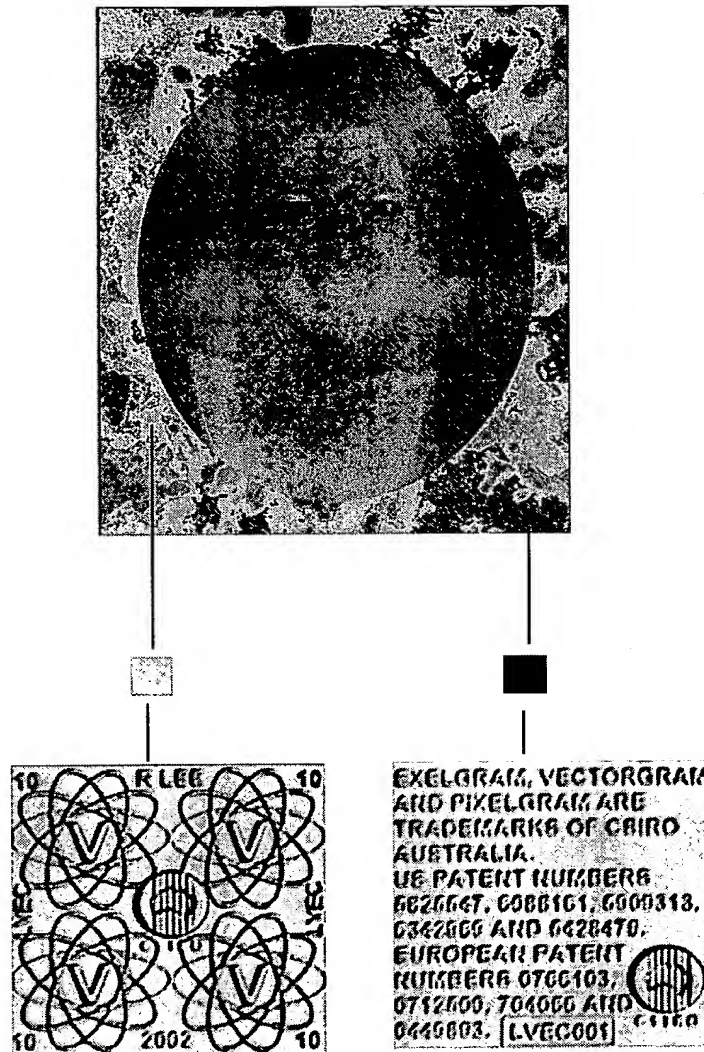


Macroscopic Images Comprised of Micrographic Microstructures



The portrait image above is a dithered pattern comprised of two different types of diffuse scattering micrographic pixels. The lighter shade of grey regions are comprised of the micrographic pixel type shown on the left (actual microscope image) while the darker regions are comprised of the mainly text type micrographic pixel shown on the right (actual microscope image). The dimensions of each microscopic pixel are 30 microns X 30 microns and there are several hundred thousand of each type of micrographic pixel within the macroscopic image whose dimensions are 20.01mm X 24.57mm. The microlettering and graphic line artwork heights within each micrographic pixel are of the order of 0.3 micron to 0.4 micron. It is the light scattering characteristics from the micro ridges and micro valleys within the micrographic pixels which accounts for the differing diffuse scattering characteristics of the two types of micrographic pixels.

R. A. Lee, July 2006

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